

LIQUID LIMIT DEVICE VERIFICATION PROCEDURE #8

Revised 6/14/2002

Equipment Checked: **LIQUID LIMIT DEVICE (AASHTO T 89)**

Purpose:

This method provides instructions for checking the dimensions of the cup and base of the liquid limit device and its physical condition.

Inspection Equipment Required:

1. Calipers readable to .01mm
2. Ruler readable to 1 mm

Tolerance:

<u>Cup Assembly</u>		<u>Tolerance</u>
Radius of cup =	54 mm	2 mm
Thickness of cup =	2 mm	0.1 mm
Depth of cup =	27 mm	1 mm
Cup @ cam follower to base =	47 mm	1.5 mm
Wear on cup at point of contact on base =		13 mm
 <u>Base</u>		
Thickness =	50 mm	5 mm
Length =	150 mm	5 mm
Width =	125 mm	5 mm
Wear on base at point of contact from cup =		13 mm

Procedure:

1. Measure the radius, thickness, depth, distance of cup at cam follower to base.
2. Check the wear of the cup at the contact point on base.
3. Measure thickness, length, and width of the base.
4. Check the wear of the base at the contact point of cup.
5. If motorized, check drop rate.

EQUIPMENT CALIBRATION RECORD

Calibration Procedure No. 8 Liquid Limit Device (AASHTO T 89)

Date:	Calibrated by:
Previous Calibration Date:	Next Due:
Frequency: 12 months	
Action Recommended:	
Repair _____ Replace _____ None _____ Other _____	
Calibration Equipment	Serial Number
Calipers, readable to 1 mm	
Metric ruler readable to 1 mm	

L.L. Base						
a 50 mm ± 5mm						
b 150 mm ± 5mm						
c 125 mm ± 5mm						
L.L. Device I.D.	Cup thickness 2.0 ± .1 mm	Cup depth 27 ± 1mm				Drops per second 13 mm max. 2 per second
			a	b	c	

a- base thickness

b- base length

c- base width

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